

Spotlight on National Park Resources in the National Capital Region George Mason University, March 29-30, 2006

Conference Abstracts

Auerbach, Kathryn, Bucks County Community College (PA) & Thomas A. Vitanza, Historic Preservation Training Center, “The Cost Effective Use of Architectural Documentation for the Treatment of Historic Structures”

Former NPS Supervising Architect for Historic Structures Charles E. Peterson once said, “... there is no (better) way to appreciate an existing, working structure – its virtues and its failures – like making a careful drawing of it.” This presentation will demonstrate that one way to learn about a historic structure and conduct architectural fabric investigation is through the production of HABS quality architectural measured drawings. Traditional hand-measuring and hand-drawing is a cost effective way to obtain useful, quality and in-depth documentation of a structure and to identify its character defining features. The resultant drawings can then be used for a variety of park uses including identification of treatment recommendations and becoming the base drawings for a treatment project.

Auerbach, Kathryn, Bucks County Community College (PA) & Thomas A. Vitanza, Historic Preservation Training Center, “The Cost Effective Use of Architectural Documentation for the Treatment of Historic Structures”

Poster Session: Presents reduced size architectural measured drawings of projects at MANA and MONO showing results of BCCC documentation projects that were part of larger HPTC HSR projects at park units; will also display HSR and program brochures.

Barrows, Edward M., Laboratory of Entomology and Biodiversity, Department of Biology, Georgetown University “The Arthropod Fauna of Dyke Marsh Preserve, Virginia”

Since 1995, the Laboratory of Entomology and Biodiversity, has been studying arthropods in Dyke Marsh Preserve (DMP), Virginia, a rich ecosystem which may contain over 4,000 arthropod species. They comprise a major component of DMP’s food web. Information about these arthropods is required to manage them in the Preserve which is threatened by erosion, pollution, and possible mosquito control with insecticides. The Lab produced Arthropods of Dyke Marsh Wildlife Preserve, Virginia: A Searchable Online Database (ADMWPD) (<http://data.georgetown.edu/departments/biology/nps/dmwp.cfm>) for DMP managers and other interested parties. So far, the ADMWPD includes over 1000 species and morphospecies, including four Virginia insect state records (2 alderflies, 1 flower fly, and 1 sawfly). The Lab also created an online taxonomic key of DMP ants (http://pick4.pick.uga.edu/mp/20q?guide=Ants&cl=US/VA/Fairfax/Dyke_Marsh). So far, publications are on DMP soil arthropods and alderflies. Work-in-progress is focusing on DMP ants, ichneumon wasps, large noctuid moths, and soil mites.

Beasley , Joy, Monocacy National Battlefield and Tom Gwaltney, /arGIS Consultants, “The Archeology of the Middle Ford Ferry Tavern at Monocacy National Battlefield”

In 2004, archeologists from the National Park Service and the University of Maryland uncovered the Middle Ford Ferry Tavern, a mid-eighteenth century tavern associated with an early ferry over the Monocacy River. This site was investigated as part of a larger multi-year study of the Thomas Farm, one of the six component properties that comprise the battlefield. A wide variety of domestic artifacts dating to the eighteenth and early nineteenth centuries were uncovered, as well as the footprint of a small structure. Subsequent primary and secondary documentary research have uncovered a great deal of information about the tavern’s occupational and social history. As the park’s oldest known historic site, the Middle Ford Ferry tavern offers a rare opportunity to explore a rural colonial tavern, and also provides clues as to the park’s earliest transportation history.

Bedell John , Louis Berger Group, “ Archeology and History in Rock Creek Park”

Fieldwork has recently been completed for the third year of a four-year archeological survey and inventory of Rock Creek Park in Washington, DC. The finds to date include a series of extraordinarily rich Native American camp sites used repeatedly between 2500 BC and AD 1400, colonial tenancies, nineteenth-century dwellings, and Civil War military artifacts from the Battle of Fort Stevens in 1864. Documentary research has uncovered many interesting details about the history of the park, and many of the archeological sites can be associated with known historical characters, from John Carroll of Annapolis to African-American tenants of the 1890s. The story of the park is long and fascinating, and this study is helping to bring it to light.

Bies, Brandon and Matthew Virta, , George Washington Memorial Parkway , “Developing an Integrated Earthworks Management Plan: Balancing Legislative Mandates, Resource Protection, and Recommended Preservation Practices”

The George Washington Memorial Parkway was established May 29th, 1930 through the Capper-Crampton Act, which mandated the protection and preservation of the Gorge of the Potomac from Mount Vernon through Great Falls. This legislation, in addition to the National Park Service Organic Act, which established parks for the purpose of conserving "the scenery and the natural and historic objects and the wildlife therein", provides a legislative framework for the management of GWMP lands. Contained within GWMP are the remains of Fort Marcy, an 1861 Civil War earthwork constructed as part of the Defenses of Washington. Today, Fort Marcy exists in an upland deciduous forest that presents both challenges and benefits to the long-term preservation of the earthworks and the archeological resources contained within. GWMP resource management staff is attempting to strike a balance between legislative mandates, cultural and natural resource management practices, and recommended procedures for the preservation of earthworks.

Brown, John W., USDA, Systematic Entomology Laboratory, “An Overview of the Invertebrate Fauna of Plummers Island, Maryland”

The biota of Plummers Island, Maryland, the research home of the Washington Biologists' Field Club and a portion of the Chesapeake and Ohio Canal National Historic Park, has been the subject of countless biological investigations over the last 100 years. While the flora and vertebrate fauna are fairly well known, the invertebrate fauna remains poorly documented with the exception of several families of insects. Recent field work (1998-2005) funded by the Washington Biologists' Field Club coupled with "data-mining" activities focused on the insect collection of the National Museum of Natural History Museum, funded by the National Park Service (2002-2004), have documented over 3,000 species of invertebrates on the site. While the species composition of some groups of insects appears to have remained fairly constant over the past 100 years, that of other groups has changed dramatically. Methods of field-collecting, specimen data-capture, and literature-review will be presented and summarized.

Brown, Ray, Manassas National Battlefield Park, “Rehabilitating the Henry House”

In 2005, Manassas National Battlefield Park completed the rehabilitation of the historic Henry House near the park's Visitor Center. The house, which dates to 1870, became a battlefield landmark for returning Civil War veterans and later housed a museum after the Sons of Confederate Veterans acquired the farm in the 1920s to establish a privately-run battlefield park, a precursor to Manassas National Battlefield Park.

The project included restoration of the dwelling's exterior to its appearance during the Henry family's occupation of the property in the late 19th century, repairs to deteriorated portions of the building, and rehabilitating the interior for use in interpretive and educational programs. The poster will highlight physical work on the building, as well as archeological, historical, and architectural research that was undertaken preparatory to the project.

Dewey, Catherine, National Capital Region, “Conservation in the Parks”

This past summer, the NCR architectural conservator has assisted several of the parks (including ANTI, NAMA, ROCR, PRPK and GWMP) with various projects to improve the condition of their monuments or to uncover historical information such as chronologies of paint, or mortar components. Before and after images will be shown of the projects and methodologies discussed.

Droege, Sam, USGS Native Bee Inventory and Monitoring Lab., “Current Native Bee Research and Monitoring in the National Capital Region”

This presentation will focus on our collaborative work on Native bees at Piscataway, Fort Washington, Parks East, Parks Central, and George Washington Parkway units over the past 4 years. Research includes habitat preferences of plantings, native plant meadows, survey techniques, impacts of Lesser Celandine, discovery of new non-native bees, identification tools, why none of my reports have been handed in, and future surveys.

Fanning, Kay, National Capital Region Cultural Landscapes Program, “Order from Chaos: Frederick Law Olmsted, Jr., and the Creation of the National Mall”

In the 1930s, the National Mall was a jumble of buildings and plantings. Hundreds of trees remained from the picturesque gardens of the 19th century, providing a well-loved public amenity but obscuring any sense of the Mall as a visual corridor between the Capitol and the Washington Monument.

Study of National Capital Region files from the 1930s is revealing the role played by landscape architect Frederick Law Olmsted, Jr., last surviving member of the 1901 Senate Park Commission, in recreating this visual axis. Olmsted adapted the Senate Park Commission plan to meet modern contingencies, such as the need for direct traffic routes across the Mall, while regrading and entirely replanting the area with lawns and lines of elms. Most important was his new design for Union Square, site of the Grant Memorial, at the east end to provide an appropriate transition between the Capitol Grounds and the new, formal Mall.

Fiedel, Stuart J., Louis Berger Group, “Stratified Prehistoric Sites along the C&O Canal”

Geoarchaeological prospecting, conducted in 2003-4 as part of the NPS Systemwide Archeological Inventory Program, resulted in discovery of several deeply stratified, multi-component prehistoric sites on Potomac River floodplains within the C&O Canal National Historical Park. Occupation zones sealed by alluvial deposits include several Late Woodland components (about 700 calendar years before present [cal BP]) and two Terminal Archaic Broadspear components (4200-3500 cal BP). At 18FR798 (near the Tuscarora Creek confluence), underneath Late Woodland and Early Woodland (about 3000 years cal BP) components, an Early Archaic component was found at about 7 feet below surface. Radiocarbon-dated to about 10,400 cal BP, this early occupation (one of the oldest yet found in the region) is characterized by chipping debris of exotic-looking materials such as jasper, chert, and chalcedony. I will explore both the culture-historical significance and resource management implications of this ongoing research.

Gorsira, Bryan, Manassas National Battlefield Park, “Fusion of Natural Resource Management and Education at Manassas”

Manassas National Battlefield Park recently restored approximately 30 acres of emergent and 15 acres of forested wetlands. Since this project was part of an agreement with the Smithsonian, consultants working for them will be monitoring the wetlands for the required 5 years. However, recently Manassas has begun Bridging the Watershed educational programs within the park. As part of that program, we are working on a park specific module. For this module, students will use nationally-standardized assessment techniques to continually monitor the health of the newly-re-established wetlands and document the area's steady return to its pre-development conditions. Data will be stored and displayed in Arc View GIS format for use by park interpretive and resource management personnel. Interventions such as plantings, invasive species management, and land-use changes (hiking or bridle paths) will also be tracked in order to better describe their impacts on the area.

Hilderbrand, Robert H.; Richard L. Raesly and Paul F. Kazyak. University of Maryland Center for Environmental Studies, “Aquatic Bioassessments in National Capital Region Streams”

In an effort to increase knowledge about the streams flowing across NPS lands in the National Capital Region, we sampled 75 sites across all NCR parks besides Catocin Mountain Park. Within each park we intensively sampled at least one site for fish, benthic invertebrates, stream chemistry, and physical habitat and produced assessments of stream health. We are using this information in conjunction with the Maryland Biological Stream Survey dataset to diagnose stressors likely to be influencing water resources. Sites dominated by agriculture and urban land uses tended to have poorer water quality (elevated nitrate and chloride), lower quality habitats, and generally lower scores for the fish IBI (Index of Biotic Integrity) and especially the benthic invertebrate IBI and associated metrics. Nitrate nitrogen was the most pervasive stressor measured in park streams and was elevated across a number of sites in all parks.

Jacob, Judy, NPS, Northeast Regional Office, Architectural Preservation Division, “Restoration of the Hahnemann Monument”

The Hahnemann Memorial, constructed in 1900 and located at the east end of Scott Circle, has suffered from deterioration over the years. In order to bring the monument to good condition, a phased preservation plan was initiated in 2004, with funds donated by the American Institute of Homeopathy. Conservators from the Northeast Regional Office’s Architectural Preservation Division, the National Capital Regional Office, and the National Mall and Memorial Parks’ Statue Preservation Crew worked together to carry out a successful preservation project. Work on the memorial included cleaning and waxing the bronze figure of Hahnemann and four associated plaques, cleaning the granite exedra and pointing open joints, and replacing missing glass tesserae from the mosaic half dome above the figure’s head. At the time of this abstract, the mosaic and bronze work has been completed, improving the appearance of the monument greatly. When all of the work is complete, the memorial will once again be an honorable tribute to Dr. Hahnemann, and will have been carried out as a successful collaboration between three NPS offices.

Kenworthy, Jason P. , NPS Geologic Resources Division/George Washington Memorial Parkway and Vincent L. Santucci, George Washington Memorial Parkway, “Monumental Resources: Fossils from the National Capital Region”

Paleontological resources, fossils, are any remains of past life preserved in geologic context. An inventory of fossils from the National Capital Region (NCR) was recently completed, and represents the first comprehensive summary of paleontological research for NCR parks, known primarily for their cultural significance. Nevertheless, the inventory revealed an astounding assemblage of fossils and fossiliferous rock formations within at least 15 parks and sites, and a 170 year history of fossil study. The fossiliferous formations represent most geologic time periods, and their fossils are as varied as the parks where they are found. These fossils include: Cambrian worm burrows and trilobites, a wide array of Paleozoic invertebrates, Triassic reptile tracks, Cretaceous plant fossils and marine vertebrates, Eocene mollusks, Miocene marine mammals, and Pleistocene petrified wood. Fossils are also visible in the building stones of some National Mall monuments and memorials, providing a unique display of fossils from around the country.

Kenworthy, Jason P., NPS Geologic Resources Division/GWMP; Vincent L. Santucci, George Washington Memorial Parkway and P. (1), Mike Antonioni, National Capital Parks East , “A “Whale” of a Resource: Fossils From NACE Parks”

Paleontological resources, fossils, are any remains of past life preserved in geologic context. A recently undertaken summary of paleontological resources in the National Capital Region revealed an astounding assemblage of fossils and fossiliferous geologic formations within and surrounding many parks. Within parks of National Capital Parks-East (NACE), the history of fossil study begins in the 1830s and continues today. Well known fossiliferous geologic formations including the Cretaceous Potomac Group, Cretaceous Severn Formation, Paleocene Aquia Formation, Miocene Calvert Formation, and Pleistocene gravels have produced fossils within many NACE parks. These fossils include petrified wood, plant material, and many marine invertebrates and vertebrates. The summary also stimulated work on a “forgotten” partial whale skull, which may represent a new taxon. NACE also maintains a growing paleontological museum collection. With many discoveries already documented, there is great potential for future paleontological research in NACE, far from the “fossil parks” of the west.

Kerr, Tim and Judith Robinson, , Robinson and Associates , “Greenbelt Park: Layers of History in a Recreational Landscape”

While few physical traces of Greenbelt Park’s past are visible today, its history remains available in numerous documents that can be used for current interpretation. Robinson and Associates has just completed a historic Resource Study for Greenbelt Park. The authors will present a few of what they consider key insights about the park. They will focus on the many human uses of the land over time from Native American, colonial settlement, the variety of agricultural activities, encroaching urbanization and finally federal urban planning during the Roosevelt administration. They will conclude with a reflection on the implication of all these changes for the management of the park by the NPS.

Lakeman, Laura and Paul Petersen, Prince William Forest Park, “A Habitat Suitability Model for Male Black Bears (*Ursus americanus*) in Prince William Forest Park, Virginia”

Habitat suitability models provide a tool for wildlife managers to focus research efforts and investigate the use of categories of habitat quality- unsuitable, marginal, acceptable, and suitable. Biological, physical, and cultural factors interact to define bear habitat quality. Bear studies consistently identify topography, vegetation, and cultural activity as environmental variables that contribute significantly to habitat quality. These variables (aspect, slope, forest cover, proximity to streams, and proximity to cultural constructs) exist at a coarse geographic scale and are especially appropriate for GIS analyses. We created a black bear habitat model based on parameter estimates developed by Van Manen and Pelton (1996). Lacking bear data specific to Prince William Forest Park, we selected relevant habitat components from the Van Manen and Pelton variable subset for input into ModelBuilder (ArcGIS). Suitability maps were created for both male and female black bears, and will be used in PRWT’s ongoing carnivore study.

Lee, Andrew S., Harper's Ferry National Historical Park, "Archeological Investigations at the U.S. Armory Grounds"

The U.S. Musket Factory site at Harpers Ferry is an historic site of the first order of significance because of its direct association with the John Brown Raid of 1859. The Archeology Program of Harpers Ferry National Historical Park has initiated a three year study in order to document the physical history of the site. This talk will present some of the findings made to date and outline future goals of the project.

Lee, Jennifer, Prince William Forest Park, "Disturbed Lands Reclamation of the Former Bradford Tract"

This project involved the reclamation of a 14.2 acre disturbed site located within Prince William Forest Park, known as the Bradford Tract. Prior to reclamation, much of the site was open and level, sloping gently to the south, and situated on fill, or soils that had been graded to some extent. In many areas, the topography of the site had been altered, affecting natural drainage patterns and creating problems with erosion. Several structures were removed; however, there were patches of concrete still remaining. Initial site reclamation was completed during the summer of 2005 and included removing concrete, asphalt, tires, trash, and all remaining structures, re-grading the terrain, restoring historic drainages, and planting native grasses. Native trees and shrubs were planted in the fall of 2005.

Loncosky, Becky, Catoctin Mountain Park, "Deer and Disturbance, Will Our Forest Regrow?"

Catoctin has been monitoring paired open and exclosure vegetation plots within two disturbed areas, one the site of a microburst storm event and the other the site of a small woodland fire, for over five years. These sites have demonstrated the effects of heavy deer browse on the ability of vegetation to rebound from these disturbance events.

McShea, William J., National Zoological Park's Conservation and Research Center , Chad M. Stewart, National Zoological Park's Conservation and Research Center, Shawn L. Carter, National Capital Region Inventory and Monitory Network and Scott Bates, NPS National Capital Region, "Bias in deer density estimation: fact or fiction?"

Annual monitoring of populations of white-tailed deer (*Odocoileus virginianus*) is necessary within National Parks to detect changes in the population density. Currently, density estimates use distance sampling techniques, which entails spotlighting from a vehicle to determine the number of deer and their distance from a transect. However, spotlighting transects follow roads, which are not random samples of the habitat, but contain features that may attract or repel deer, violating a major assumption of the technique. We tested this assumption using remote-trip cameras in Catoctin National Park and Antietam National Battlefield. Twenty cameras were placed along four distance categories (0-25m, 25-50m, 50-100m, and 150-200m) from each park's survey route. Cameras were moved every 20 days until 80 points were sampled. The number of deer photographed was compared between buffers to determine distribution relative to the survey road. The distribution was also compared to the distribution of deer sighted during the annual census.

McShea, William, National Zoological Park's Conservation and Research Center Chad Stewart, National Zoological Park's Conservation and Research Center and Ed Wenschhof, Antietam National Battlefield, "Deer Movement Research – Antietam"

Poster summarizes the process and findings of the pilot Deer Movement Study completed by the Smithsonian Conservation & Research Center and the National Park Service at Antietam National Battlefield from 2003-2005. Poster includes information about techniques of capture, movement summary, density information, and health information.

Mortensen, Lena, Center for Heritage Resource Studies University of Maryland and Barbara Little, National Park Service, "Enhancing Archeological Interpretation in Unlikely Places"

Archeology is everywhere and visitors are interested in learning more about this "path to the past," wherever they go. Many NCR parks have archeological resources that are not interpreted to the public, but the possibilities are intriguing. The Mather Training Center and the University of Maryland used NCR's CESU to cooperate on the development of training in the effective interpretation of archeological resources. The training sequence, modeled after NPS Fundamentals, incorporates both classroom and online training. To accommodate decreasing travel budgets and increasing time pressures on park staff, the University's Center for Heritage Resource Studies has re-designed a training module from on-the-ground to on-line. We'll summarize the sequence of training, focusing on the benefits and successes of running existing online courses, and introduce the new self-paced, web-based study tour that can open up a world of possibilities.

Parsons, Mia, Harpers Ferry National Historical Park, "Harpers Ferry Federal Armory Season One Excavations"

The poster overviews the first season of excavations at the Federal Armory at Harpers Ferry National Historical Park. Photos, maps, drawings and other documents provide a brief explanation of the history of the site and show some highlights of the excavation.

Perrier, Gregory, Northern Virginia Community College, Manassas Campus and Bryan Gorsira, Manassas National Battlefield Park, "Small Mammal Re-colonization of Restored Lands"

In 2004 the Manassas National Battlefield Park recontoured an area to restore the landscape to its civil war era condition. The desired landscape is to be a mosaic of forests and grasslands. To enhance the recovery of the grasslands, the Park seeded these areas with Indian grass, partridge pea, round head lespedeza, black-eyed susan, tall coneflower, and marsh blazing star. The objectives for this study were to monitor the establishment of the seeded species and to document the successional changes that occur in the vegetation and small mammal communities as the grassland reestablishes. A one hectare study plot was established and plant cover by species was determined by recording the species found at each meter mark along four 100-meter transects. The occurrence of small mammals was measured using thirty-six live traps placed on a grid throughout the plot. Plot results were compared to those from an old-field grassland.

Petersen, Paul, Prince William Forest Park, “Land Use/Land Change Analysis in PRWI”

Prince William Forest Park was established in 1933 as the Chopawamsic Recreation Demonstration Area. Prior to this designation, the 15,000 acres of land was used for subsistence farming, timber harvesting, and mining. Seventy plus years of federal protection has encouraged vegetation re-growth, and the park is now primarily forest.

Park Resource managers have attained historic black and white aerial photographs, taken in 1937 and 1954 of the park and surrounding area. These images have been used to develop a coarse analysis of land-use/land-change for the park over a seventy-year period. Classification and textural analysis in ERDAS were used to enhance information in the imagery, and aid in the interpretation of basic land-use characteristics, such as coniferous forest, deciduous forest, fields, and cropland. The information in this project helps managers better understand the transition of protected lands over time.

Pieper, James M., Jr., Prince William Forest Park, “Stream Bank Assessment: A Baseline Survey of Physical Channel Health”

This poster presents the cumulative findings of two field seasons of data collection from Prince William Forest Park’s (PRWI) Stream Bank Assessment (SBA). Based upon the United States Department of Agriculture – Natural Resources Conservation Service’s Stream Visual Assessment Protocol (Technical Note 99-1), the SBA program incorporated two additional features into its methodology, geo-referenced photo-points and channel profiles. This survey has resulted in numerous baseline datasets. A library of visual media, channel-centered Global Positioning System data, a series of incremental profile measurements, and indices of physical health scores now exist for all of PRWI’s first order streams. From this information, it has been determined that the majority of PRWI’s stream channels are in fair to good condition, with a few examples each of excellent and poor condition sites. With the incorporation of the SBA program into PRWI’s Water Quality Monitoring program, park management now has a well-rounded view of its Water Resources.

Talken-Spaulding, Jennifer, National Mall & Memorial Parks, “A Tail of Temperance: Restoration of a Historic Structure”

The Temperance Fountain, located in the National Mall & Memorial Parks, was donated to the city of Washington and accepted by Congress in 1882. This unique structure consists of a bronze crane sitting atop a small open temple with four granite columns with the fountain inside. The fountain is a zinc sculpture of two dolphins, or fish, with their tails intertwined.

In April 2005, the dolphin sculpture was subjected to an unauthorized gilding (gold-leaf application) by an associated private group. The park, with the assistance of the regional conservator, assessed the effects of the gilding on this historic sculpture and determined that removal of the inappropriate, and potentially harmful, treatment was in order. What followed was an interdisciplinary project that led to new discoveries and the successful restoration of this historic structure. This presentation will discuss the restoration project and the invaluable support provided by conservation professionals in the region.

Talken-Spaulding, Kirsten, Prince William Forest Park, “When Spies Talk”

In honor of the 60th anniversary of the disbanding of the U.S. Army Office of Strategic Services (OSS), the progenitor of the Central Intelligence Agency, Prince William Forest Park hosted a month long speaker series in October 2005. Through the use of historic photographs, maps, and other artifacts, resource management and interpretive staff connected visitors with a little known part of park history. In unexpected ways, this series impacted presenters and participants. Many participants used the information presented to make connections to their family's past. With OSS documents only recently declassified, people have had no means to find out about their own family history. Presenters found that their information was not an abstract item of study, but a touchstone for many. Visitors came hours to attend, often for all five events. Many took extensive notes. This presentation will explore the connections made and how historical resources can bring a park's history close to home.

Walker, Keven, Antietam National Battlefield, “The Roulette Springhouse Historic Structure Report”

Antietam National Battlefield's Cultural Resources Division has taken a relatively new approach to completing a Historic Structure Report for the Roulette Springhouse. Rather than contracting for the HSR's completion, Antietam has worked within the Park Service to produce almost the entire document “in house”; By working with HABS, HPTC, Monocacy National Battlefield, and the Harpers Ferry Center, the staff at Antietam has been able to complete the document at a fraction of the expense usually incurred by contracting out for the same services and has produced an HSR that meets NPS standards and will be a document useable by the park for which it was produced.

Partnerships within the Service were the key to Antietam's efforts to document this historic structure. How this document was produced; the advantages and disadvantages of completing documents like this one “in house”; and the possible use of this approach on other projects would be the focus of this presentation.

Walker, Keven and Jane Custer, Antietam National Battlefield, “Working with Elderhostel Groups”

In 2004, the cultural resource division at Antietam National Battlefield teamed up with a local camp (Shepherd Springs) to host Elderhostel work projects. To date over 2,000 hours of work has been completed through these work projects. We generally have one spring and one fall week long work project. Work projects have included vegetation removal to clear 1200 feet of historic lane, 700 feet of worm fence construction, interior painting, tree planting and paling fence construction. Park staff members work along side the elderhostel participants and share the history and importance of the resources with them. Having the elderhostel work projects at Antietam has been beneficial for the park and the participants as well. With the added workers the park has been able to undertake projects we could not have done as effectively and the elderhostel participants gain a better understanding of the park's resources and most leave feeling a stronger appreciation for the park and the National Park Service.

The poster will document projects and discuss tips for coordinating Elderhostel work projects. Wells, Elizabeth Fortson, The George Washington University, “Restoration of Harperella, Endangered Pant Species, in C&O Canal HNP”

Harperella (Ptilimnium nodosum), the only endangered plant species in the National Capital Region, National Park Service, has been located three times on the Potomac River on C&O Canal NHP land in the past 90 years, then extirpated by severe flooding.

Research since 2001 has demonstrated that harperella requires stream cobblebars in full sun, protection from severe erosion, limited range of water depth, freedom from invasive non-native plants, and sandy soil. Recently seeds have been shown to germinate as they are produced in late summer, in warm temperatures. Flooding in late summer washes seeds away, but plants, if submerged, produce plantlets at the nodes, which take root and overwinter, as the older, biennial plants die in the fall.

In 2003 and 2004 seeds and seedlings were transplanted into plots along the Potomac River on park land, but were lost in subsequent floods. In 2005 seedlings were transplanted into selected sites in the canal prism and have survived.

West Pam and Trudy Kelley, Museum Resource Center (MRCE), “Salvaging Natural and Cultural Resources from Disasters”

Members of the Museum Emergency Response Team (MERT) have responded to 3 hurricanes in the last 3 years. These hurricanes affected both cultural and natural resources, including park and CESU held specimens. A synopsis of what the team is doing will spread the word about how even the most damaged resources can be salvaged and preserved.

Wheelock, Perry, Rock Creek Park; , Bill Yeaman, Rock Creek Park and Tim Morris, Potomac Crossing Consultants, “The Northwest Passage: Creating Fish Passage in Rock Creek”

As part of the environmental mitigation for the construction of the new Woodrow Wilson Bridge crossing over the Potomac River, six structures have been constructed of stone and other materials in Rock Creek that are engineered to help anadromous fish complete their annual migration upstream. These structures, which are scheduled to be finished in time for the spring 2006 fish run, have been designed and constructed around several historic and non-historic features of Rock Creek Park. These include Milkhouse Ford, Peirce Mill dam, and three active sewer lines. Our joint paper will discuss key aspects of the natural and cultural resource considerations for this large multi-agency project, with a particular focus on the efforts to balance both program areas in the design and decision-making process. Tim Morris, an environmental mitigation manager for the Potomac Crossing Consultants, will also participate in the presentation.